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# Electronic Data Interchange

*An Information Brief*
*February 2015*

## Background

Electronic data interchange (EDI) is the exchange of health care information between organizations in a standardized electronic format.[1]  The Health Insurance Portability and Accountability Act of 1996 (HIPAA) included Administrative Simplification provisions that required the establishment of national standards for electronic health care transactions.  Standards were established for the electronic transmission of health care claims and other related health care transactions, such as health plan eligibility (270/271) and claims payment and remittance advice (835), among others.[2, 3]  The Maryland Health Care Commission (MHCC) began analyzing EDI activity in 1998 to identify opportunities to promote adoption in accordance with the law.  Health-General Article, §4-302.1, requires State-regulated payors (payors) that have annual premiums exceeding $1M, including certain specialty payors, to submit census level information regarding electronic administrative transactions as part of their EDI Progress Report to MHCC by June 30th of each year.[4, 5]

## 2013 EDI Progress

*Overview*

Approximately 39 payors, which consists of 29 private payors, eight Managed Care Organizations, Medicare, and Medicaid, submitted a 2013 EDI Progress Report.  The information presented in this brief highlights EDI activity in Maryland for government payors, including Medicare and Medicaid, and the six largest private payors, including Aetna, Inc. (Aetna), CareFirst BlueCross BlueShield (CareFirst), Cigna Healthcare Mid-Atlantic, Inc. (Cigna), Coventry Health Care of Delaware, Inc. (Coventry), Kaiser Permanente Insurance Company (Kaiser), and UnitedHealthcare of the Mid-Atlantic, Inc. (United).

*Electronic Claim Submissions*

Over the past ten years, EDI activity among Maryland payors has grown on average by roughly 4.3 percent annually.  Claims submitted electronically increased from approximately 58 percent in 2002 to about 91.9 percent in 2013.  This is on par with EDI nationally, in which 91 percent of claims were submitted electronically in 2013.[6]  The growth of EDI is attributed to payor adoption of the electronic transaction standards established by HIPAA.  The shift from paper to electronic-based processes enables payors and providers to simplify operational workflows.

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[1] Use of standards can increase efficiencies and reduce administrative costs; actual savings generated may vary by organization based on efficiencies in workflow.

[2] Public Law 104-191 and 42 CFR Parts 160 and 162

[3] Other administrative transactions identified by transaction code include:  health plan eligibility (270/271), health claim status (276/277), referral certification and authorization (278), health plan premium payments (820), enrollment/disenrollment in a health plan (834), and claims payment and remittance advice (835).

[4] Code Of Maryland Regulations 10.25.09, *Requirements for Payers to Designate Electronic Health Networks*

[5] Specialty payors include Medicare, Medicaid, and Managed Care Organizations.

[6] *2013 U.S. Healthcare Efficiency Index Electronic Administrative Transaction Adoption and Savings*, Council of Affordable Quality Healthcare, May 2014.  Available at:  www.caqh.org/pdf/2013Index.pdf.

Electronic claim submissions to government payors exceeded private payors by about 10 percent for practitioner and hospital claims. Electronic dental claims submitted to private payors continue to lag behind government payors. Nearly all payors accept electronic dental claims; however, several payors noted that dental providers find EDI to be burdensome with minimal efficiencies.

| Maryland EDI Activity Overview | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|
| Claim Type | Private Payors % | | | Government Payors % | | | Total % | | |
| | 2012 | 2013 | Variance | 2012 | 2013 | Variance | 2012 | 2013 | Variance |
| Practitioner | 86.3 | 87.5 | 1.2 | 97.4 | 97.5 | 0.1 | 91.4 | 92.2 | 0.8 |
| Hospital | 86.7 | 88.9 | 2.2 | 98.0 | 98.1 | 0.1 | 91.9 | 93.4 | 1.5 |
| Dental | 34.1 | 36.7 | 2.6 | 100 | 100 | 0 | 79.7 | 83.4 | 3.7 |
| Total | 84.8 | 86.3 | 1.5 | 97.6 | 97.8 | 0.2 | 90.8 | 91.9 | 1.1 |

*Note: "Total" includes the combined percentage for all claim types.*

*Other Administrative Transactions*

Administrative transactions can be submitted to payors via EDI (i.e., batch file submissions) or online directly through a payor's web-based portal. Batch file enables multiple administrative transactions to be uploaded at once; conversely, web-based transactions are submitted individually. Notable findings include: United accepts nearly all administrative transactions by batch file and through their web-based portal; Kaiser accepts only batch transitions because they are an integrated health care system; and, all payors continue to support the electronic claims payment and remittance advice (835) via batch transactions.[7, 8]

| Administrative Transactions Utilized by the Six Largest Private Payors in Maryland<br>Web-Based (W) vs. Batch (B) | | | | | | | | | | | | | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Payor | 270/271 | | | | 276/277 | | | | 278 | | | | 820 | | | | 834 | | | | 835 | | | |
| | 2012 | | 2013 | | 2012 | | 2013 | | 2012 | | 2013 | | 2012 | | 2013 | | 2012 | | 2013 | | 2012 | | 2013 | |
| | W | B | W | B | W | B | W | B | W | B | W | B | W | B | W | B | W | B | W | B | W | B | W | B |
| Aetna | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | | ✓ | | | ✓ | | ✓ | | ✓ | | ✓ | | ✓ | | ✓ |
| CareFirst | ✓ | | ✓̲ | | ✓ | | ✓̲ | | ✓ | | ✓ | | | ✓ | | ✓ | ✓ | ✓ | ✓ | ✓ | | ✓ | | ✓̲ |
| CIGNA | ✓ | | ✓ | ✓̲ | ✓ | | ✓ | ✓̲ | ✓ | | ✓ | ✓̲ | | ✓ | | ✓ | | ✓ | | ✓ | | ✓ | | ✓ |
| Coventry | ✓ | | ✓ | | ✓ | | ✓ | | ✓ | | ✓ | | | ✓ | | ✓ | | ✓ | | ✓ | | ✓ | | ✓ |
| Kaiser | | ✓ | | ✓ | | ✓ | | ✓ | | | | | | ✓ | | ✓ | | ✓ | | | | ✓ | | ✓ |
| United | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | | | | ✓ | | | | ✓ | ✓ | ✓ | ✓ | ✓ |
| Total (#) | 5 | 3 | 5 | 4 | 5 | 3 | 5 | 4 | 5 | 1 | 5 | 2 | 0 | 5 | 0 | 6 | 1 | 5 | 1 | 5 | 1 | 6 | 1 | 6 |

*Note: A checkmark that is underlined (✓̲) indicates the exclusion of dental for the specified transaction type.*

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[7] Kaiser's business model combines an insurance company with hospitals, clinics, pharmacies, and salaried doctors.
[8] The claims payment and remittance advice (835) is used by payors to provide claim payment information to providers electronically.

## Remarks

EDI is considered to be the solution for most problems inherent in paper-based transactions, and it enables users to reengineer information workflows and business processes.  The continued slow growth of dental EDI is concerning; dental EDI trails other providers by nearly 50 percent.  Over the next year, MHCC intends to work with dental providers and payors to identify opportunities to increase EDI.  EDI activity among hospitals and practitioners is notable; modest increases in EDI is anticipated over the next year absent additional changes in payor and provider business practices.

This information brief (brief) was completed by Angela Evatt, Chief, Health Information Exchange, within the Center for Health Information Technology & Innovative Care Delivery under the direction of the Center Director, David Sharp, Ph.D.  For information on this brief, please contact Angela Evatt at 410-764-3574 or by email at angela.evatt@maryland.gov.